

IN THE CLAIMS

The current claims follow. For claims not marked as amended in this response, any difference in the claims below and the previous state of the claims is unintentional and in the nature of a typographical error.

1. (Currently Amended) For use in communications system coupled to a packet network lacking packet aggregation and fragmentation at intermediate nodes therein, a packet relay for improving bandwidth utilization comprising:

a connection to a wireless link;

a connection to the packet network; and

a packet relay controller intercepting traffic between the wireless link and the packet network and re-formatting the intercepted traffic to employ a first maximum transmission unit size for intercepted traffic forwarded to the packet network and a second maximum transmission unit size for intercepted traffic forwarded to the wireless link,

wherein the first maximum transmission unit size is larger than the second maximum transmission unit size.

2. (Cancelled)

3. (Original) The packet relay as set forth in Claim 1 wherein the first maximum

transmission unit size is an optimal path maximum transmission unit size for packet communications between the packet relay controller and a final destination within the packet network.

4. (Original) The packet relay as set forth in Claim 1 wherein the second maximum transmission unit size is suitable for wireless communications.

5. (Original) The packet relay as set forth in Claim 1 wherein the packet relay controller aggregates packets within intercepted traffic from the wireless link for forwarding to the packet network.

6. (Original) The packet relay as set forth in Claim 1 wherein the packet relay controller fragments packets within intercepted traffic from the packet network for forwarding to the wireless link.

7. (Original) The packet relay as set forth in Claim 1 wherein the packet relay controller is an Internet protocol level proxy within an interface between a wireless communications system and an internal packet network for an enterprise operating the wireless communications system.

8. (Currently Amended) A communications system comprising:
a wireless communications device employing a wireless link;

a packet network lacking packet aggregation and fragmentation at intermediate nodes therein;
and
a packet relay for improving bandwidth utilization in communications between the wireless communications device and a final destination within the packet network comprising:

a connection to the wireless link;

a connection to the packet network; and

a packet relay controller intercepting traffic between the wireless link and the packet network and re-formatting the intercepted traffic to employ a first maximum transmission unit size for intercepted traffic forwarded to the packet network and a second maximum transmission unit size for intercepted traffic forwarded to the wireless link,

wherein the second maximum transmission unit size is smaller than the first maximum transmission unit size.

9. (Cancelled)

10. (Original) The communications system as set forth in Claim 8 wherein the first maximum transmission unit size is an optimal path maximum transmission unit size for packet communications between the packet relay controller and a final destination within the packet network.

11. (Original) The communications system as set forth in Claim 8 wherein the second maximum transmission unit size is suitable for wireless communications.

12. (Original) The communications system as set forth in Claim 8 wherein the packet relay controller aggregates packets within intercepted traffic from the wireless link for forwarding to the packet network.

13. (Original) The communications system as set forth in Claim 8 wherein the packet relay controller fragments packets within intercepted traffic from the packet network for forwarding to the wireless link.

14. (Original) The communications system as set forth in Claim 8 wherein the packet relay controller is an Internet protocol level proxy within an interface between a wireless communications system and an internal packet network for an enterprise operating the wireless communications system.

15. (Previously Presented) For use in communications system coupled to a packet network lacking packet aggregation and fragmentation at intermediate nodes therein, a method of improving bandwidth utilization comprising:

intercepting traffic from a wireless link to the packet network;

re-formatting the intercepted traffic to employ a first maximum transmission unit size different than a second maximum transmission unit size of the intercepted traffic;
forwarding the re-formatted traffic to the packet network;
intercepting traffic from the packet network to the wireless link; and
re-formatting the intercepted traffic from the packet network to the wireless link to employ the second maximum transmission unit size.

16. (Original) The method as set forth in Claim 15 wherein the step of re-formatting the intercepted traffic to employ a first maximum transmission unit size different than a second maximum transmission unit size of the intercepted traffic further comprises:

re-formatting the intercepted traffic to employ a maximum transmission unit size which is larger than the second maximum transmission unit size.

17. (Original) The method as set forth in Claim 15 wherein the step of re-formatting the intercepted traffic to employ a first maximum transmission unit size different than a second maximum transmission unit size of the intercepted traffic further comprises:

re-formatting the intercepted traffic to employ an optimal path maximum transmission unit size for packet communications between an interception point and a final destination within the packet network.

18. (Original) The method as set forth in Claim 15 wherein the step of re-formatting the intercepted traffic to employ a first maximum transmission unit size different than a second maximum transmission unit size of the intercepted traffic further comprises:

re-formatting the intercepted traffic from a maximum transmission unit size suitable for wireless communications.

19. (Original) The method as set forth in Claim 15 wherein the step of re-formatting the intercepted traffic to employ a first maximum transmission unit size different than a second maximum transmission unit size of the intercepted traffic further comprises:

aggregating packets within intercepted traffic from the wireless link for forwarding to the packet network.

20. (Previously Presented) The method as set forth in Claim 15 further comprising:
forwarding the intercepted traffic re-formatted to employ the second maximum transmission unit size to the wireless link.